

REQUEST FOR RECONSIDERATION

Claims 1, 3-6 and 8 are active in the case.

The rejection of Claims 1, 3-6 and 8 under 35 U.S.C. §103(a) as unpatentable over Harkonen et al is traversed.


Harkonen et al does not teach or suggest the limitation in present Claim 1 that the matrix material comprises a rare earth sulfide or a rare earth selenide and that the matrix material further comprises at least one compound selected from the group consisting of a rare earth thioaluminate, a rare earth thiogallate and a rare earth thioindate. The portion of Harkonen et al referred to by the Examiner in column 4, lines 41-47 sets forth only mixtures of compounds of Group II-VI compounds and alkali earth metal chalcogenides and does not set forth mixtures of compounds of Group II-VI compounds, oxides, oxysulfides, or sulfides of rare earths as well as aluminates and gallates such as lanthanum aluminate with Europium or cerium, as asserted by the Examiner. The portion of Harkonen et al referred to in column 5, lines 25-64 merely lists in lines 39-50 a group of materials suitable as a matrix material, "Such suitable materials are, e.g., II-VI compounds like ZnO, ZnS or ZnSe and alkali earth metal chalcogenides like MgS, CaS, BaS or SrS. Also the oxides, oxysulfides or sulfides of rare earths are possible, such as e.g., Gd_2O_3 , Y_2O_2S or La_2S_3 as well as aluminates and gallates $(MLn)AlO_x$ and $(MLn)GaO_x$ in which $M = Zn, Ca, Sr$ or Ba and $Ln = Y, La, Gd$ or Ce . The activator layer can be mainly composed of a halide MX_2 or LnX_3 or oxyhalide $LnOX$ in which $M = Ca, Sr, Ba$ or Zn and $Ln = Y, La, Ce$ or Gd and $X = F, Cl$ or Br ." Thus, it is clear that there is no teaching or suggestion that the aluminates referred to in the above section are thioaluminates, because the aluminates referred to in the above section are stated as being metal aluminates in which the metal is zinc, calcium, strontium or barium and does not include sulfur to form a rare earth thioaluminate, such as lanthanum thioaluminate, as in the present claims. Also, there is no teaching or suggestion in column 5, lines 25-64 of Harkonen et al that the group II-VI compounds and the alkali earth metal chalcogenides may be mixed with the oxides

oxysulfides or sulfides of rare earth or aluminates and gallates, such as the disclosed lanthanum aluminate of Harkonen et al. Further, Harkonen et al does not teach or suggest that Group II-VI compounds can be mixed with oxysulfides and rare earths as well as aluminates in order to increase an energy level to greater than 2 eV for brighter light emission, as asserted by the Examiner. The portion of the Harkonen et al reference in column 4, lines 16-39, referred to by the Examiner, does not teach or suggest a mixture of Group II-VI compounds with oxysulfides of rare earths, as well as aluminates and does not teach or suggest rare earth thioaluminates and, therefore, the worker of ordinary skill in the art would not be directed to the use of a rare earth thioaluminate such as lanthanum thioaluminate in combination with a rare earth sulfide or a rare earth selenide as a matrix material, as recited in present Claim 1. The claims distinguish over Harkonen et al.

It is submitted that Claims 1, 3-6 and 8 are allowable and such action is respectfully requested.

Respectfully submitted,

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